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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/550,596	04/17/2000	Mauro Bettati	10138-0002-2	1077

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EXAMINER

RODRIGUEZ, ARMANDO

ART UNIT

PAPER NUMBER

2828

DATE MAILED: 05/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Peter Ing
Wilson
1-650-320-4847

Office Action Summary

Application No.

09/550,596

Applicant(s)

BETTIATI ET AL.

Examiner

Armando Rodriguez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers


- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.


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DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 7-23 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 7-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: no structure has been recited to obtain a laser and no structure has been recited to obtain a cavity.

Claims 12 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: no structure has been recited for the output face to have the capability of reflection.

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent

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granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 7-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Ventrudo et al (PN 6,233,259).

Ventrudo et al illustrates in figure 2 a pigtailed diode laser having a fiber Bragg grating for stabilizing the intensity and frequency fluctuations of the diode laser.

Regarding claim 7,12-16

Figure 2 illustrates a laser cavity (26), which provides a laser radiation (28) having a wavelength, an optical fiber (32) coupled to the laser cavity the optical fiber having a Bragg grating (34) for reflecting the laser radiation, as described in column 3 lines 49-65. The fiber grating is selected to have a maximum reflectivity within 10 nm of the diode laser emission wavelength, as disclosed in column 4 line 12-13. Column 6 lines 48-53 disclose the pigtailed diode laser as being stable even when the current or temperature are altered and that no control of the laser diode temperature is required, thereby the laser diode is operated at ambient temperature.

Regarding claim 8,

The fiber grating is selected to have a maximum reflectivity within 10 nm of the diode laser emission wavelength, as disclosed in column 4 line 12-13. Column 6 lines 48-53 disclose the pigtailed diode laser as being stable even when the current or temperature are altered and that no control of the laser diode temperature is required, thereby the laser diode is operated at ambient temperature.

Regarding claim 9,

The fiber grating is selected to have a maximum reflectivity within 10 nm of the diode laser emission wavelength, as disclosed in column 4 line 12-13. Column 6 lines 48-53 disclose the pigtailed diode laser as being stable even when the current or temperature are altered and that no control of the laser diode temperature is required, thereby the laser diode is operated at ambient temperature.

Regarding claim 10,

The fiber grating is selected to have a maximum reflectivity within 10 nm of the diode laser emission wavelength, as disclosed in column 4 line 12-13. Column 6 lines 48-53 disclose the pigtailed diode laser as being stable even when the current or temperature are altered and that no control of the laser diode temperature is required, thereby the laser diode is operated at ambient temperature.

Regarding claim 11,

The laser diode of figure 2 illustrates an emission facet (27) and a quantum well or index guided structure from InGaAs semiconductor material (not shown) but disclosed in column 3 lines 50-60. The reflection facet is not shown or disclosed, however such a reflection facet is inherent within the laser system.

Regarding claim 17,

Figure 2 illustrates an optical fiber (32) as the optical waveguide.

Regarding claim 18,

The laser diode of figure 2 illustrates an emission facet (27) and a quantum well or index guided structure from InGaAs semiconductor material (not shown) but disclosed in column 3 lines 50-60.

Regarding claim 19,

The laser diode of figure 2 illustrates an emission facet (27) and a quantum well or index guided structure from InGaAs semiconductor material (not shown) but disclosed in column 3 lines 50-60.

Regarding claim 20,

The laser diode of figure 2 illustrates an emission facet (27) and a quantum well or index guided structure from InGaAs semiconductor material (not shown) but disclosed in column 3 lines 50-60.

Regarding claim 22,

Figure 2 illustrates an optical fiber (32) coupled to the laser cavity the optical fiber having a Bragg grating (34) for reflecting the laser radiation.

Regarding claim 23,

The fiber grating is selected to have a maximum reflectivity within 10 nm of the diode laser emission wavelength, as disclosed in column 4 line 12-13. Column 6 lines 48-53 disclose the pigtailed diode laser as being stable even when the current or temperature are altered and that no control of the laser diode temperature is required, thereby the laser diode is operated at ambient temperature.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ventrudo et al (PN 6,233,259) in view of Ventrudo (PN 6,240,119).


The use of optical elements for coupling laser radiation is well known in the art, as shown by Ventrudo. Figure 1 illustrates a pigtailed laser diode having a collimating lens (22) and a focusing lens (24) for coupling the laser diode radiation to the optical fiber.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Armando Rodriguez whose telephone number is (703) 308-6218. The examiner can normally be reached on 10-hour day / M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Ip can be reached on (703) 308-3098. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7721 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-4881.


Armando Rodriguez
Examiner
Art Unit 2828


Paul Ip
Supervisor
Art Unit 2828

AR/PI
May 17, 2003